

GENERAL SUPPORT CENTER-EUROPE



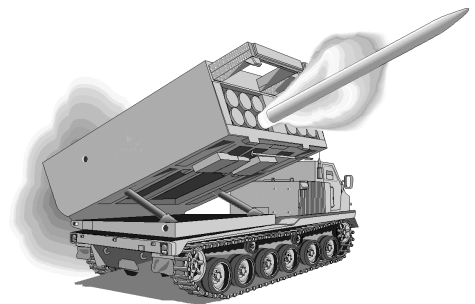
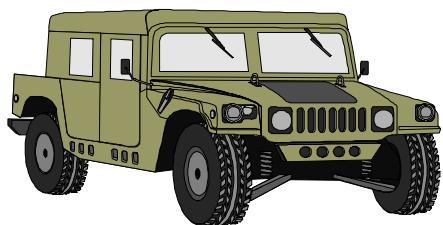
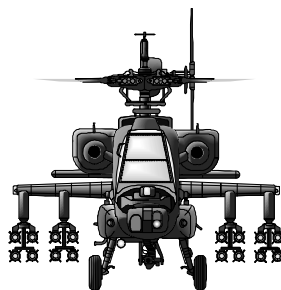
MANNHEIM LABORATORY CENTER (MLC)

AOAP & MATERIAL TESTING LABS

EXTERNAL SOP

October 2001

THE BEST SUPPORTING THE BEST!



DEPARTMENT OF THE ARMY
MANNHEIM LABORATORY CENTER (MLC)
UNIT 29702, BOX 301
APO AE 09028

AERSC-MLC (750-1)

22 Oct 01

MEMORANDUM FOR Mannheim Laboratory Center (MLC) Supported Customers

SUBJECT: Mannheim Laboratory Center External Standing Operating Procedures - Customer Assistance

1. Your thoughts and idea plus lessons learned, the identification and solving of systemic problems resolution are culminated here. Enclosed, please find guidance to assist you in utilizing our Army Oil Analysis Program (AOAP) and Materiel Testing Laboratory (MATLAB) services IAW DoD, DA, and USAREUR regulations.

2. POCs this organization at MLC-Mannheim AOAP Lab, Mr. Starling DSN-382-4254/5288; or at MLC-Bamberg AOAP Lab, Mr. Donahue, DSN 469-8496.

3. THE BEST SUPPORTING THE BEST!



FRANCIS W. S. RICHBOURG
Director, MLC

MLC EXTERNAL STANDING OPERATING PROCEDURES - CUSTOMER ASSISTANCE

ARMY OIL ANALYSIS PROGRAM (AOAP) AND MATERIAL TESTING SERVICES

1. **PURPOSE:** To provide guidance and instructions on proper procedures when utilizing the Army Oil Analysis and Material Testing services.
2. **APPLICABILITY:** This Standing Operating Procedure (SOP) applies to all units, maintenance activities, agencies, and organizations supported by the USAREUR Army Oil Analysis and Material Testing Laboratories.
3. **REFERENCES:**
 - (a) TB 43-0106, Army Oil Analysis Program Aeronautical Equipment.
 - (b) DA PAM 738-751, Functional Users Manual for the Army Maintenance System - Aviation (TAMMS-A).
 - (c) http://weblog.logsa.army.mil/aoap/aoap/_air_a.htm , Aeronautical Equipment
 - (d) DA PAM 738-750, Functional Users Manual for The Army Maintenance Management System (TAMMS).
 - (e) AR 750-1, Army Materiel Maintenance & Retail Maintenance Operations
 - (f) TB 43-0211, AOAP Guide for Leaders and Users.
 - (g) USAREUR Supplement 1 to AR 750-1, Army Maintenance Policy and Retail Maintenance Operations.
 - (h) http://weblog.logsa.army.mil/aoap/aoap_combat_.htm , Nonaeronautical Equipment
 - (i) AR 700-139, Army Warranty Program.

NOTE: The most current DA Pam, TB, AR, and Supplement have been used in compiling this SOP.

**MANNHEIM LABORATORY CENTER (MLC)
STANDING OPERATING PROCEDURES - CUSTOMER ASSISTANCE**

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CHAPTER I GENERAL INFORMATION

1-1 OPERATING HOURS OF MANNHEIM LABORATORY CENTER

OFFICE OF DIRECTOR

Mon - Fri	0730-1600
Director	Francis Richbourg
Tele DSN	382-5288
Deputy Director	Ms. D. Munn
Tele DSN	382-4192
Secretary/Admin	Ms. A. Lofton
Tele DSN	382-5288
AOAP Mgmt Spec.	Mr. C. Starling
Tele DSN	382-4357
Fax DSN	382-4302
Tele/Fax COM	0621-779-XXXX
Location	Coleman Barracks Bldg #50

MANNHEIM AOAP LABORATORY

Mon - Fri	0730-1600
Lunch	1200-1230
Holidays	Lab Closed American Holidays Lab Closed German Holidays/Admin Open
Lab Chief	Mr. I. Al-Saadi
Tele DSN	382-5246/4383
Fax DSN	382-4302
Tele/Fax COM	0621-779-XXXX
Location	Coleman Barracks Bldg #50

After Duty Hours Emergency Samples: (Aircraft Only)
Contact IC Office, Bldg #63 at the Main Gate entrance
of Coleman Bks or Flight Dispatch Office, Bldg #20.

Mailing Address	Mannheim Laboratory Center Unit 29702, Box 301 APO AE 09028
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BAMBERG AOAP LABORATORY

Mon - Fri	0730-1600
Lunch	1200-1230
Holidays	Lab Closed American Holidays Lab Closed German Holidays/Admin Open
AOAP Mgmt. Spec.	Mr. M. Donahue
Tele DSN	469-8496
Lab Chief	Mr. J. Lueken
Tele DSN	469-8427/8424
Fax DSN	469-8497
Tele/Fax COM	0951-300-XXXX
Location	Warner Barracks Bldg # 7487

Mailing Address

Mannheim Laboratory Center, Bamberg Activity
ATTN: AERSC-MLC-BA
Unit 27535
APO AE 09139

MATERIAL TESTING LABORATORY, MANNHEIM

Mon - Fri	0730-1600
Lunch	1200-1230
Holidays	Closed American Holidays Closed German Holidays
Lab Chief	Dr. H. Gaa
Tele DSN	382-4115/5221
Fax DSN	382-4302
Tele/Fax COM	0621-779-XXXX
Location	Coleman Barracks Bldg #52

1-2.

USAREUR AOAP MONITOR TRAINING/CERTIFICATION PROGRAM

Mannheim AOAP Training	DSN 382-5288/4254 COM 0621-779-XXXX
Bamberg AOAP Training	DSN 469-8424/8427 COM 0951-300-XXXX

2-1. PUBLICATIONS ON AERONAUTICAL GUIDELINES

Aeronautical components enrolled in the AOAP are listed in TB 43-0106 or log on to: http://weblog.logsa.army.mil/aoap/aoap_air_a.htm website. Aviation units must follow the policies and procedures outlined in TB 43-0106, DA Pam 738-751, and AR 750-1.

**2-2. SPECIAL INSTRUCTIONS ON SAMPLING TECHNIQUES
(Ref. TB 43-0106)**

a. Aeronautical Drain Method Sampling Procedure - Oil samples may easily be contaminated with water or sludge if approximately 1 pint of oil is not drained prior to taking a sample when using the drain method. Aviation units must exercise proper procedures while taking a sample to avoid any contamination to the oil.

b. Aeronautical Tube Method Sampling Procedure - The use of plastic flexible tubing for aeronautical sampling is preferred. The tube is inserted in the filler neck or the dipstick tube. Insert tubing in oil reservoir. Be careful not to let the tube touch the bottom of the reservoir. Allow the tube to fill with oil (do not use mouth suction), place a finger over the top of the tube and withdraw it from the reservoir. The tube will be partially filled with oil. Insert the tube into the sample bottle. Release the oil by removing your finger from the top of the tube. Repeat the action until the bottle is filled. Then write the aircraft end item/ component serial number on the label of the oil sample bottle. DD Form 2026/DA Form 5991-E must be completed, wrapped around the bottle, secured with a rubber band then forwarded to the laboratory.

c. When using the tube method, do not allow the tube to touch the sides or bottom of the oil tank when taking a sample through the filler neck; sludge which enters the tubing causes erroneous laboratory findings (which may result in the aircraft being grounded or resample requested). Oil samples should always be taken approximately the same depth in the reservoir each time.

2-3. SPECIAL INSTRUCTIONS ON AERONAUTICAL COMPONENT DATA

a. Aviation units must ensure that aircraft component serial numbers correspond with the correct end item at all times to avoid data errors on DD Form 2026/DA Form 5991-E and the AOAP computer database. It should be noted that if a component serial number does not correspond to the correct end item and the laboratory analysis indicates abnormal results, the wrong aircraft could be grounded and the lab may not be able to conclude which aircraft should actually be grounded. This is very dangerous and could lead to aircraft accidents.

b. Aviation units must always include hours since overhaul and hours since oil change on the DD Form 2026/DA Form 5991-E. This information is crucial to laboratory evaluation criteria.

c. Aviation units must inform the AOAP laboratory on the DD Form 2026/DA Form 5991-E in the remarks block why a sample is submitted as "SPECIAL" when not requested by the lab (i.e., chiplights, overspeed, overtorque, filter button, sudden stoppage, metal on filter, aircraft mishap, unusual noises, etc.). This information determines if additional analysis is needed, which is essential to the accurate evaluation and recommendation of the component in question.

d. Aviation units should, upon detection of metals on chip detector or abnormal metals found on oil filter, submit the metal/filter to the AOAP laboratory along with oil sample ASAP. The debris submitted is an extremely important factor in determining specific additional analysis.

e. Aviation Monthly Report: Aviation units will only receive the Components Enrolled Report. Component History Printouts are available upon request.

CHAPTER III AOAP INSTRUCTIONS/PROCEDURES FOR NONAERONAUTICAL EQUIPMENT

3-1. WHAT TO SAMPLE

Equipment/components mandated for AOAP are listed in DA Pam 738-750 and on the LOGSA website http://weblog.logsa.army.mil/aoap/aoap_combat_a.htm

3-2 WHEN TO SAMPLE (DA PAM 738-750)

a. Routine samples are to be submitted at prescribed intervals as established in (DA Pam 738-750). Samples should be taken as near the prescribed interval as possible. Sampling at the prescribed time is not always possible. In such instances a 10 percent variance before or after the scheduled date, hours, or miles for sampling is permissible.

b. Special samples are those samples other than routinely scheduled. Special samples should be submitted to the laboratory under the following circumstances:

- (1) At the request of the laboratory.
- (2) Immediately before transfer among commands or overseas deployment of equipment. These special samples will be processed by the laboratory prior to the transfer or deployment.
- (3) After maintenance, overhaul, or replacement of a component.
- (4) After indication of a problem, i.e., overheating, excessive oil loss, or loss of pressure.
- (5) After indication of contamination, i.e., cloudy, sludge, water, excessively dirty, visible metal particles, etc.

NOTE: Special samples should be clearly marked "SPECIAL" and banded with red tape or marked in some other conspicuous manner so that the laboratory may easily identify them. The DD Form 2026/DA Form 5991-E that accompanies the samples to the laboratory should be marked "SPECIAL" in the "Remarks" block and its borders should be outlined in red.

c. Equipment that is "NMC" does not require sampling until repairs are completed. When a vehicle is in storage, no sampling is required until the vehicle is scheduled for operational use.

d. Units should sample maintenance float equipment at 25 hours of operation or quarterly, whichever occurs first.

e. When a vehicle is used for developmental purposes, used as a training aid or static display, authorization to discontinue sampling or to sample at longer intervals may be granted by the applicable major command. When the equipment returns to normal operation, sampling intervals established in DA Pam 738-750) will once again apply.

f. When a unit is deployed and AOAP is not readily available, the unit maintenance officer may authorize an oil and filter change when oil contamination is evident. On these occasions, a sample of the contaminated oil will be forward to the supporting AOAP laboratory as soon as possible with appropriate comments included in the "Remarks" block of the DD Form 2026/DA Form 5991-E (Oil Analysis Request).

(1) During the transition to war, AOAP support will be provided by fixed labs, mobile, and/or portable systems as they are available.

(2) During wartime, AOAP service will be provided as far forward as possible using the most responsive system available. AOAP service will also be event oriented, occurring during unit stand downs, reconstitutions, and the conduct of DS/GS levels of maintenance.

g. If equipment has been targeted for turn-in or labeled excess and **is not in operational use, awaiting disposition instructions**, the following procedures apply:

(1) A memorandum from the Commander is required by the laboratory 90 days in advance or ASAP identifying all equipment/unit(s) affected. For large density, it is recommended that units use the laboratory **Components Enrolled Report** to identify the end items/ components that are affected. **When this report is used, the memorandum from the Commander must be attached**, otherwise the laboratory will not execute the action. Turn-ins of small quantity may be listed on the memorandum. In this case the equipment must be identified by **end item model, end item serial number, and component serial number**.

(2) After the laboratory has been notified, routine sampling requirements may be discontinued as long as **equipment is not in operational use**. However, laboratory recommendations from the last sample analysis (if results were 'ABNORMAL') must be complied with.

(3) The laboratory will place the equipment in STORAGE status in the AOAP database until disposition instructions are received. Equipment will not be identified as

delinquent on the AOAP monthly printout while awaiting disposition instructions. When equipment is dropped from unit's property book, unit must notify the supporting lab to delete the equipment from the AOAP monthly printout.

h. Anytime a unit relocates, either permanently or thru deployment, the following is required:

(1) The unit must notify the servicing laboratory by memorandum from the Commander 90 days prior to departure date or ASAP identifying all equipment, the unit(s) involved, and the new location. Advance notice is required in order to provide the servicing laboratory sufficient time for processing of records.

(2) All equipment scheduled to relocate or deploy must be sampled prior to relocation. Laboratory recommendations other than "NORMAL" must be complied with prior to placement of the equipment on TDY/PCS status.

(3) Upon completion of sample analysis and the determination of "NORMAL" results, equipment records will be finalized in the AOAP database. The last sample result must be maintained as part of the equipment's permanent record.

(4) The losing laboratory will forward the units equipment records to the gaining laboratory.

i. Unit deploys without equipment (equipment in admin storage):

(1) Unit must notify the supporting laboratory by memorandum from the Commander as early as possible of deployment date, and the equipment affected. Laboratory recommendations from the last sample result (result other than "NORMAL") must be complied with prior to placing the equipment in admin STORAGE status. The last sample result must be maintained as part of the equipment's record. The losing laboratory will place the equipment in STORAGE status during deployment, and forward the unit's equipment records to the gaining laboratory.

(2) The supporting laboratory should be notified approximately 30 calendar days prior to re-deployment to home station.

3-3. HOW TO SAMPLE/SAMPLING SUPPLIES/SAMPLING METHODS (DA PAM 738-750)

a. IAW DA Pam 738-750 units will maintain an adequate level of sampling supplies. If your equipment has a sampling valve, the oil sampling pump or tubing is not needed.

b. Oil samples should be submitted to the AOAP laboratory as soon as they are pulled whenever possible.

c. Samples taken from a cold component normally do not give a true representative sample of the oil in the system. The laboratory prefers that all samples be taken at normal

operating temperature, however, units may take a sample without warming the component to operating temperature if the equipment has been operated within the last 30 days. If the equipment has not been operated within the last 30 days, it must be brought up to operating temperature before sampling. This applies to both routine and special samples. When the laboratory requests that a component be operated before sampling, this request must be complied with.

NOTE: Although the above procedure authorizes taking cold samples, all samples taken on gas turbine engines must be taken at normal operating temperature. When the temperature is very low, one may not be able to take a cold sample readily, therefore equipment may need to be operated to warm the oil enough to extract the sample easily. Equipment coming out of storage must always be brought up to operating temperature prior to sampling.

d. Samples taken from an oil reservoir immediately after addition of new oil will not be representative, and will not become representative until complete mixing of the old oil and new oil has taken place. Unit should operate the equipment until normal operating temperature has been obtained.

NOTE: The Unit Equipment Oil Sampler should ensure that all safety precautions are observed when taking a sample to protect from injury and to avoid environmental hazards.

e. Sampling - (valve method) to take a sample using the valve method, simply open the valve and flush a small amount (approx. 1/2 pint or 3 oz) of oil from the line to clear the valve. **Fill the sample bottle to approximately 1/2-inch from the top** (do not overfill the sample bottle), then close the valve. Fill in your equipment bumper number, component type, i.e., engine, transmission or hydraulic, and component serial number on the sample bottle label to avoid a mix-up between samples.

f. Sampling- (pump method) to take a sample through the oil filler neck or through the dipstick tube. Units should follow the procedure listed below:

(1) Determine how far the tubing has to be inserted into the reservoir by using the dipstick as a gauge. Cut tubing approximately 10 inches longer than the dipstick.

(2) Attach tubing to the sampling pump by inserting tubing through "T" handle opening. Tubing should extend 1/4 inch below pump head threads, then tighten "T" handle.

(3) Attach bottle to sampling pump.

(4) Carefully insert tubing into reservoir. Do not allow tubing to touch the bottle or sides of the reservoir, since any sludge entering the tubing will contaminate the sample.

(5) Hold sample pump horizontally and pump until oil starts entering the bottle. Fill the bottle to approximately 1/2 inch from top (do not overfill the sample bottle). Depress vacuum relief valve (on top of the pump) to stop flow of oil.

(6) Remove bottle from pump, replace and tighten bottle cap.

(7) Withdraw tubing from reservoir, loosen "T" handle, and remove tubing from pump. Discard tubing and replace reservoir covering.

(8) Fill in your equipment bumper number, component type and component serial number on sample bottle to avoid mix-up between samples.

3-4. PREPARING THE SAMPLE FOR THE LABORATORY (DD FORM 2026/ULLS DA FORM 5991-E, OIL ANALYSIS REQUEST)

a. A DD Form 2026/DA Form 5991-E must accompany all oil samples to the laboratory. The following instructions explain the information required on the DD Form 2026/DA Form 5991-E. **Samples submitted without this form will not be processed; samples submitted with incomplete Oil Analysis Request forms will not be processed.**

(1) To Oil Analysis Lab: Enter name of your supporting laboratory.

(2) From Major Command, Operating Activity: Include your Major Command (3rd ID, 1st AD, 21st TAACOM, SETAF, etc.), full unit designation and address, UIC, and telephone number.

(3) Equipment Model/APL: Enter nomenclature and model number of component, (example: Engine AVDS 1790-2A or XMSN CD 850-6A or HYD System).

(4) Equipment Serial No: This block shall contain the serial number of the engine or the component being sampled.

(5) End Item Model/Hull No.: (WHAT IS IT, BY NAME?) i.e., M4K, M923, N915.

(6) End Item Serial No./EIC: Enter the end item serial number (the number of the vehicle or equipment, not the NSN).

(7) Date Sample Taken: (Self-explanatory).

(8) Local Time Sample Taken: LEAVE BLANK.

(9) Hours Since Overhaul: The AOAP software will not accept miles or kilometers for hours since overhaul, therefore if neither the component nor the end item have an hour-meter, the odometer reading must be converted to hours using the formula below **(see para 3-4a(18)).**

(10) Hours Since Oil Change: The AOAP software will not accept miles or kilometers for hours since oil change, therefore if neither the component nor the end item have an hour-meter, the odometer reading must be converted to hours using the formula below **(see para 3-4a(18)).**

(11) Reason For Sample: (Is it Routine, Lab Request, Special, or Other?) If it is "Other," state reason in remarks block, i.e., initial sample, excessive smoke, loss of engine power.

(12) Oil Added Since Last Sample: Identify in pints, quarts, or gallons.

(13) Action Taken, Discrepant Item, How Malfunctioned, How Found: LEAVE BLANK.

(14) How Taken: (Drain or Tube).

(15) Sample Temperature: (Hot or Cold)

(16) Type Oil: (15W40, etc.).

(17) Remarks Block: When using the manual DD Form 2026, the AOAP monitor or Motor Sergeant should be the POC listed in the remarks block. Record any special symptoms that might indicate a problem or any special maintenance that has been performed, and ensure that total **end item usage is recorded in this block, to include current meter reading plus usage from replaced meters**. End item usage may be reported in miles, hours, or kilometers, but must be consistent. **For each component that is sampled, whether a manual Oil Analysis Request is used or the ULLS 5991-E, end item usage must be recorded on the Oil Analysis Request when submitted to the laboratory. If usage is not submitted to the laboratory on the Oil Analysis Request, it will be reflected on the monthly printout (Components Enrolled Report) as "UNK," and the end item and/or component will be identified as having no usage reported.**

(18) For the purpose of determining usage data on equipment with no hour-meter, the following formula may be used as a guide when converting miles/kilometers to hours for the purpose of reporting hours since overhaul and hours since oil change: **10 miles or 16 kilometers = 1 hour of operation**. Laboratory personnel will not convert miles or kilometers to hours.

b. Units operating under ULLS will use automated forms in place of manual forms prescribed in this SOP. Units should always submit the most legible copy of the ULLS 5991-E Oil Analysis Request to the laboratory. When copies are not legible, laboratory personnel often encounter difficulties reading data which is vital to laboratory analysis, evaluation, and the accuracy of the monthly printouts. To avoid delays in sample processing and discrepancies to the monthly printout, please submit clear and legible ULLS forms.

c. The AOAP Monitor is responsible for ensuring that all data is accurate and complete for each end item/component enrolled in the AOAP. Failure to update the ULLS database will result in sample confusion, processing delays, and monthly printout errors.

d. When samples are to be mailed, and the number is four or less, use the shipping sack. Insert the sample(s) into the plastic bag and seal. Place completed Oil Analysis Request into the shipping sack along with the plastic bag(s). Send it first class mail to your supporting laboratory. Commercial express parcel delivery may also be used to ship samples to the laboratory. Do not use bulk mail or parcel post.

When the number of samples is five or more, use the boxes that the empty bottles came in . **Place the Oil Analysis Request in a plastic bag and lay it on top of the bottles**, and forward to the laboratory using the most expeditious mode available.

e. Do not ship or forward loose oil sample bottles in large cardboard containers or group Oil Analysis Requests in one large stack inside the container. Use the twelve bottle container boxes and place inside the large container. Place the Oil Analysis Request inside the plastic “ziploc” bag; place the bag containing Oil Analysis Request(s) within the box that has the corresponding bottles.

f. When delivering the samples directly to the laboratory by courier, fold the completed Oil Analysis Request in half (lengthwise), wrap it around the sample bottle, and secure it with a rubber band. Please do not tape the Oil Analysis Request to the bottle.

3-5. LABORATORY RECOMMENDATIONS (RESAMPLE/OIL CHANGES)

a. The laboratory will date stamp the DD Form 2026/DA Form 5991-E when received. Regardless if the analysis results show “NORMAL” or “ABNORMAL”, the dated DD Form 2026/DA Form 5991-E will be returned to the unit within five days after it has been processed thru local distribution channels. The laboratory dated DD Form 2026/ DA Form 5991-E confirms the equipment was sampled and should be placed behind the DD Form 314 and retained until the next sample is submitted and another laboratory dated DD Form 2026/DA Form 5991-E is returned to the unit. Only the most recent DD Form 2026/DA Form 5991-E should be retained with the DD Form 314.

b. Resample recommendations are issued by the laboratory only when the original sample does not confirm a diagnosis. Since a serious fault may exist, additional evaluation/ analysis is required. Units must respond to the request ASAP. If the unit cannot respond within 5 working days, the maintenance officer or his designated representative must notify the laboratory chief to determine the possibility of sustaining more damage if the equipment remains in service.

c. Oil will not be changed unless recommended by the laboratory. When recommended, both oil and filter(s) will be changed. The AOAP is a condition monitoring program which is designed to reduce resource usage by conserving petroleum products through the On-Condition-Oil-Change (OCOC) policy. The OCOC policy does not change or modify procedures and guidance for new equipment under manufacturer’s warranty or seasonal oil change requirements in current TMs or LOs.

(1) For new equipment under manufacturer’s warranty, hard-time oil service intervals must be followed. However, if the AOAP laboratory recommends an oil change, the recommendation will be followed. The unit must also change oil at the appropriate hard-time interval to keep the warranty valid. After the warranty period expires, OCOC procedures will apply.

(2) If the laboratory recommends that a warranty component have maintenance performed, the AOAP monitor should contact the supporting Warranty Control Office and provide details of the laboratory recommendation relative to the item under warranty.

3-6. MAINTENANCE RECOMMENDATIONS/FEEDBACK FORMS (DA Form 3254-R AND DA Form 2407)

a. DA Form 3254-R will be used only when a maintenance action is recommended and not to request resamples or recommend oil changes. Maintenance recommendations will be annotated on the DA Form 3254-R when sample analysis indicates a serious problem and dispatched to unit via telephonic message and written message format.

b. Upon receipt of a DA Form 3254-R issued by the AOAP laboratory, the unit commander will place the equipment in a NMC status until the maintenance action is completed.

c. If the laboratory recommends removing the equipment from service (which means, do not operate) due to a potentially serious fault, the unit maintenance officer will immediately remove the item in question from service. It will not be returned to service until repairs are completed or technical inspection by the maintenance officer/support maintenance personnel verify that continued use will not cause further wear and damage. Determination of component removal from the end item is made by maintenance personnel, not by laboratory personnel. AOAP pressure-sensitive labels should be attached to the component upon determination that removal of the component from the end item is necessary. If maintenance personnel do not have AOAP labels, contact the supporting lab and request the labels.

(1) In the case of an emergency requiring use of the equipment before repairs are completed, a certification of the necessity to use the item, and a statement as to what actions have been taken to prevent further damage, must be annotated in Block 14 of DA Form 3254-R. The statement must be verified by signature of the unit commander or his designated representative.

(2) Corrective action for all recommended maintenance must be accomplished as soon as possible. If all repairs cannot be completed within 10 working days, the unit should request that the end item/components be placed in "MAINT" status in the AOAP database to avoid delinquency. A request for equipment to be placed in "MAINT" status due to maintenance related reasons does not require the signature of the commander. However, a DA Form 2407/DA Form 5990-E must be submitted to the laboratory. The easiest way to accomplish this is to submit an Oil Analysis Request for each component belonging to the end item, attached to the DA Form 2407/5990-E. In the "Remarks" block of the Oil Analysis Request(s), inform the laboratory to place the equipment in "MAINT" status. Please ensure that all end item/component serial numbers are annotated on the Oil Analysis Request(s). The lab will not place the equipment in "MAINT" status if the request is not accompanied by DA Form 2407/DA Form 5990-E. After repairs are completed, follow the sampling instructions that were recommended on the DA Form 3254-R by the laboratory.

d. The correct procedures for maintenance feedback from each level of maintenance are outlined in the following paragraphs: (Reference TB 43-0211, AOAP Guide for Leaders and Users).

(1) **Organizational Level (Maintenance Feedback)**

[3 copies of the DA Form 3254-R and 4 AOAP labels are forwarded to the unit from the laboratory].

a. If personnel in the using unit have performed the laboratory recommended inspection or repair action, they will complete the lower portion of DA Form 3254-R ("Unit Level" copy); Block 14 of DA Form 3254-R will be used to explain any diagnostics performed, discrepancies found, and actions taken to return the component to a serviceable condition. Both forms must be signed by the NCOIC and returned to the laboratory within five working days after maintenance is completed. Forward unused AOAP labels back to the laboratory, discard the other two copies of DA Form 3254-R.

b. If the required maintenance is above the organizational level, be sure to annotate this in Block 14 of DA Form 3254-R. Forward annotated copies of DA Form 3254-R (**one copy**), and DA Form 2407/5990-E to the laboratory. Forward the other **two copies of the DA Form 3254-R** and AOAP labels along with the equipment to DS. If the component is placed in a container, AOAP labels should be affixed to opposite sides of the container.

(2) **DS Level (Maintenance Feedback)**

a. When equipment is received at DS level, it should be accompanied with **two copies of the DA Form 3254-R, a DA Form 2407, and AOAP labels**. If repairs are made at DS level, DS personnel are responsible for annotating Block 14 of DA Form 3254-R with the discrepancies found, and repairs that were made; cost of labor and the repair parts used should be annotated on SAMS-1 Work Order Detail. Forward the DA Form 3254-R, DA Form 2407/5990-E, and the SAMS-1 to the laboratory within five days after maintenance is completed; all paperwork must be signed by the maintenance NCOIC.

b. If repairs cannot be made at the DS level, **one copy of the DA Form 3254-R** should be annotated in Block 14 that the equipment has been evacuated to GS maintenance, and forwarded to the laboratory; AOAP labels must be attached to the component if it has been removed. **DA Form 2407/5990-E and the second copy of the DA Form 3254-R** must accompany the component to GS maintenance.

(3) **GS Level (Maintenance Feedback)**

GS responsibilities are to assure that Direct Support has properly prepared DA Form 3254-R and DA Form 2407/5990-E and forwarded them with the equipment/component. When repair actions have been completed, annotate Block 14 of the DA Form 3254-R explaining any diagnostics performed, discrepancies found, and actions taken to restore the component to a serviceable condition. Attach a copy of the DA Form 2407/5990-E to the DA 3254-R, ensure that all forms are signed by the GS maintenance officer, and forward to the laboratory within five days after maintenance is completed.

NOTE: EACH LEVEL OF MAINTENANCE IS RESPONSIBLE FOR SUBMITTING FEEDBACK TO THE LAB WHEN A DA FORM 3254-R IS ISSUED.

3-7. REPEAT NOTICES

When the laboratory issues a recommendation and the unit does not comply with the recommendation, a second notice will be issued to the unit. Please note the following example of a repeat notice situation.

a. If the lab recommends that an engine be inspected/repaired due to fuel contamination and the unit only changes the oil and submits a resample, then most likely that resample will still be fuel contaminated. The fuel problem still exists. This will result in a 2nd Notice.

b. Sometimes, a leak may be so small that after changing the oil, the resample appears NORMAL. Based on lab analysis, the lab sees good oil and assumes the problem has been corrected, BUT, when your next routine sample is submitted, laboratory analysis will

indicate that the fuel leak is still there. This will result in a 2nd Notice, even though there was a NORMAL sample between the 1st and 2nd Notice.

c. If there are extenuating circumstances that prohibit you from complying with laboratory recommendations, the AOAP lab should be notified.

d. After a component receives a 2nd Notice, a memorandum will be forwarded to the unit commander requesting assistance to resolve the discrepancy. This memorandum will be elevated up the chain of command until recommendations have been complied with. The objectives of the AOAP are to maintain equipment readiness by early detection of conditions that cause equipment failure; reduce maintenance/repair cost by removing equipment from service prior to catastrophic component failure and excessive component wear. Noncompliance with laboratory recommendations conflicts with AOAP objectives.

3-8. INSTRUCTIONS FOR UPDATING/EDITING/TRANSFERRING COMPONENT DATA

a. Things to check on your Usage and Sample Status Report:

- (1) Incorrect end item and component model.
- (2) Incorrect end item serial number.
- (3) Incorrect component serial number.
- (4) Duplicate component enrollment for the same end item.
- (5) Equipment that does not belong to the unit.
- (6) Incorrect or no end item usage reported.
- (7) Incorrect bumper numbers

NOTE: Units must use DD Form 2026/DA Form 5991-E, Oil Analysis Request, to make data corrections to the AOAP database. Memorandums and printouts will not be accepted to execute data corrections. Instructions must be clear and legibly stated on the Oil Analysis Request. All corrections, changes, and deletions that are relevant to data errors must be authorized by signature of the AOAP monitor before the lab will initiate the changes.

Verbal or telephonic requests for data corrections will NOT be executed by the lab. Corrections must be submitted to the AOAP laboratory before the 25th day of each month to ensure printout accuracy.

b. All the items listed in 3-8a above can be corrected simply by using the Oil Analysis Request.

(1) All changes should be made in the ULLS database prior to being submitted to the AOAP laboratory.

(2) After changes have been made to the ULLS database, the correct information should appear in the data fields of the DA Form 5991-E or DD Form 2026; the incorrect information should be annotated in the "Remarks" block, along with instructions requesting the laboratory to delete the incorrect information. The lab will assume that all other information elsewhere on the form is correct. Samples are not required when making data corrections.

c. If an end item has had a component change, the unit must inform the lab to delete the **old component serial number** to avoid a delinquency. **First**, the unit should **enroll the new component** by submitting a sample to the lab accompanied with an Oil Analysis Request containing the correct information for the new component. **In the "Remarks" block of the same form, annotate the old component serial number and instruct the lab to delete it.**

d. When equipment has been transferred to another unit and it is known where it was transferred to, please forward this information to the AOAP lab. This will allow the laboratory to transfer the equipment's history rather than deleting it.

e. The lab will not delete a component that requires (DA Form 3254-R) feedback; feedback must be provided before the component can be deleted from the printout.

f. Deletion of an entire company or battalion from the AOAP data base requires a memorandum **signed by the Commander, XO, or a Warrant Officer** in the unit's chain of command. All end items/components and unit(s) affected must be identified. The request should be addressed to the supporting laboratory (ATTN: AOAP Lab, Mannheim or AOAP Lab, Bamberg). Verbal requests for deletions will NOT be executed.

g. Permanent Relocation/Temporary Deployment – Any time a unit relocates, either permanently or through deployment, the following procedures are necessary:

(1) The unit must notify the servicing laboratory concerning transfer/deployment schedules in advance of departure. Advance notice is required in order to provide the laboratory sufficient time for processing of records for transfer to the new supporting laboratory.

(2) The losing laboratory will forward equipment AOAP records directly to the gaining laboratory, unless directed otherwise.

h. Transient Equipment Records - Transient units are responsible for obtaining complete oil analysis records for their equipment from the losing laboratory and for delivery of the records to the gaining laboratory at the new operating site. If sufficient time is not available to comply with these procedures before departure, the losing laboratory will mail all required oil analysis records to the gaining laboratory.

3-9. TDY OR PCS STATUS

a. TDY or PCS status is a code used by the AOAP lab and will appear on the monthly Components Enrolled Report after the lab has been notified that the unit is deploying. **All requests (memorandums) for equipment to be placed on TDY or PCS status must be signed by the Commander (see para 3-9b below).**

b. Unit should attach the Components Enrolled Report to the memorandum requesting TDY or PCS status. Equipment to be placed on TDY/PCS status should be highlighted.

c. When equipment is participating in field exercises (i.e., Grafenwoehr): this does not constitute the need for TDY status. Routine sampling intervals still apply.

3-10. MAINTENANCE STATUS

If unit is unable to sample equipment due to maintenance related reasons, i.e., equipment in 3rd Shop, equipment being painted, awaiting parts that prohibit the component from being sampled, etc., the AOAP lab should be contacted using the following procedures:

a. Units should submit a copy of DA Form 2407/5990-E or DA Form 2404/5988-E along with one Oil Analysis Request form for **each component** belonging to the end item (all components belonging to the end item should be placed in "MAINT" status to avoid printout delinquencies). In the "Remarks" block, unit must instruct the lab to place the equipment in "MAINT" status.

b. Verbal requests will NOT be accepted. Requests submitted without DA Form 2407/5990-E (Work Order) will not be accepted. The DA Form 2404/5988-E should be used only if equipment is awaiting a part (at the organizational level) that prohibits a sample from being taken.

3-11. SAMPLES SUBMITTED WITH INSUFFICIENT OIL OR INSUFFICIENT/DUPLICATE DATA

a. Samples submitted with insufficient oil or insufficient data such as, missing or obvious incorrect component serial numbers on the Oil Analysis Request form, **will not be processed**. Samples submitted with illegible Oil Analysis Request forms due to oil spillage during transit will not be processed.

Insufficient oil or insufficient data will result in delinquencies on the printout. Your equipment was sampled, but your serial number did not match the previously submitted serial number. The DD Form 2026/ULLS 5991-E Oil Analysis Request form will be returned to the unit stating the reason why the sample was not processed and the corrective action unit personnel should take. Personnel should follow the corrective action immediately to avoid printout problems.

b. If duplicate serial numbers are received (equipment claimed by another unit), the sample will be processed and the DD Form 2026/ULLS 5991-E will be returned to the unit asking the unit to verify ownership of the equipment. Verification should be done immediately.

c. Components with duplicate bumper numbers (bumper numbers within the unit) must be verified by the unit if the laboratory requests verification.

d. It is the responsibility of the AOAP Monitor to ensure that the Oil Analysis Request form is accurate and complete. Repeated incorrect data problems may require visual inspection of the component/end item serial numbers, bumper numbers, etc

e. End Item Usage Reporting: When an ENG, XMSN, or HYD sample is submitted to the lab, the odometer reading of the end item must be recorded on each Oil Analysis Request. End item usage must be reported as miles, hours, or kilometers. If the end item does not have an odometer, record the hour-meter reading. If the increment of usage is not identified on the Oil Analysis Request, it will not be entered into the AOAP database. Failure to submit usage is reflected on the monthly printout as “UNK,” meaning no end item usage was reported.

(1) When the end item has both an odometer and hour-meter, only record the odometer reading.

(2) Ensure total equipment usage is shown, i.e., the current meter reading plus usage from replaced meter(s). DD Form 314 (“Remarks” block) will indicate if the equipment had a meter replaced and the usage of the old meter.

(3) If the component is not installed in an end item, enter “uninstalled” on the Oil Analysis Request form. Usage reporting is NOT REQUIRED for end items not having an odometer or hour-meter.

3-12. COMPONENT ENROLLMENT

a. End items required to participate in the AOAP are listed in DA Pam 738-750 and the LOGSA website: http://weblog.logsa.army.mil/aoap/aoap_combat_.htm Some end items have multiple components requiring AOAP, i.e., an M984 has three components (ENG, XMSN, and HYD System) all of which must be sampled.

b. Units should check their Components Enrolled Report monthly to ensure that all end items/components owned by their unit requiring AOAP are sampled IAW prescribed regulations and/or directives.

3-13. AOAP MONTHLY PRINTOUTS

The official AOAP monthly printouts are generated between the first and seventh day of each month and expedited to supported units via APO or pickup by unit personnel. Mannheim Laboratory Centers will disseminate monthly printouts for nonaeronautical (ground) equipment as follows to various command levels:

- a. Division Levels will receive upon request:
 - (1) copy of Components Enrolled Report
 - (1) copy of Resample & Type Recommendation Report
 - (1) copy of Laboratory Workload Summary Report
- b. Brigade Levels will receive upon request:
 - (1) copy of Components Enrolled Report
 - (1) copy of Resample & Type Recommendation Report
 - (1) copy of Laboratory Workload Summary Report
- c. Battalion or Regiment Levels will receive:
 - (2) copy of Components Enrolled Report
 - (2) copy of Resample & Type Recommendation Report
- d. Unit Levels will receive:
 - (2) copies of Components Enrolled Report
 - (2) copies of Resample & Type Recommendation Report

e. The above dissemination will be provided only as indicated above. There are no mid-month reports generated by the laboratory. An additional copy of the official reports may be obtained in emergency cases only. Requests for additional copies of the monthly reports will be determined on a case-by-case basis. Additional copies may be obtained when units deploy or relocate.

f. Some levels of command share official mailing address such as, a Battalion and Unit. Levels of command that receive official monthly reports for dissemination to subordinate elements are responsible for ensuring that subordinate elements receive the reports in a timely manner. The AOAP laboratory will not provide additional reports due to late dissemination within the units chain of command.

- g. Information contained in the monthly reports:

(1) **Components Enrolled Report** lists the total number of end items/components enrolled, the date sample was taken, the date next sample is due, end item/component usage, 3254-Rs issued, delinquencies, and brief lab recommendations. This report is the most important communication link between the unit and the lab.

(2) **Resample and Type Recommendation Report** identifies what equipment/component reflected abnormal sample results and the lab recommendation(s) issued. This report also identifies repeat notices (the number of times the lab has requested the unit to comply with recommendations).

(3) **Laboratory Workload Summary Report** is provided to Command Monitors. This report summarizes total end items enrolled, total components enrolled, percentage of end items having no usage data submitted, percentage delinquent, previous recommendations requiring feedback, total samples received, number of routine samples received, number of resamples, special samples, total number of samples that were normal, total number of resamples requested by the lab, total number of oil changes recommended by the lab, and the total number of maintenance actions recommended by the lab in UIC sequence for all units in brigade or equivalent commands.

3-14. AOAP RESPONSIBILITIES

a. It is essential that Commanders at all levels ensure that implementation and procedures of AOAP are followed IAW AR 750-1, chp. 4-36; DA Form 738-750, chp. 4; TB 43-0211, USAREUR Supplement 1 to AR 750-1; MLC External SOP, and other applicable publications/memorandums.

(1) All units and levels of command must have an AOAP monitor who is adequately trained by the supporting laboratory. AOAP DUTY APPOINTMENTS must be in writing and signed by the Commander. A copy of the duty appointment must be forwarded to the supporting AOAP laboratory to be maintained in the unit's record. Only AOAP monitors appointed by the Commander in writing will be allowed to transact AOAP business for their respective unit. Unit personnel who serve as an ALTERNATE monitor must also be appointed in writing with signature of the Commander; a copy should be furnished to the supporting laboratory.

(2) Upon receipt of a DA Form 3254-R (Oil Analysis Recommendation and Feedback) issued by the AOAP laboratory, the unit Commander will place the equipment in a NOT MISSION CAPABLE STATUS until the maintenance action is completed.

(3) **Actions that require signature of the Commander, XO, or Warrant Officer:** (Please refer to paragraphs 3-2 through 3-9 of this SOP for details on each action):

- a. Entire company/battalion deletions from the AOAP database.
- b. Permanent relocation or temporary deployment.
- c. Equipment targeted for turn-in or labeled excess; or equipment no longer on unit property book.
- d. Placement of equipment on TDY (see para 3-12h & i), PCS, or STORAGE (see para 3-2g, page 5) status.
- e. DD Form 1556, Request, Authorization, Agreement, Certification of Training and Reimbursement, to enroll in the AOAP Monitor training course.

b. Command Monitors, i.e., Division, Brigade, and Battalion level AOAP Monitors, should establish an adequate program to ensure that all participating units are well informed of the total program requirements IAW DA and USAREUR policies for the Army Oil Analysis Program. Command monitors are the central POC for all actions relevant to subordinate units within their command. It is essential that command monitors be knowledgeable of unit level AOAP in general and the policies/procedures outlined in this SOP, to include the following:

(1) Division/Brigade/Battalion monitors will forward a copy of AOAP appointment(s) indicating their full name, rank, complete mailing address, and military/commercial telephone number to the supporting AOAP laboratory and subordinate units.

(2) Command monitors must be trained/certified by the supporting AOAP laboratory. Command monitors must take the lead in establishing a basic training package for unit personnel thru coordination with subordinate AOAP monitors and/or MLC.

(3) Review the monthly AOAP Laboratory Workload Summary Report and initiate corrective action when the report reflects a problem in subordinate units.

(4) If the command monitor has requested that the monthly Components Enrolled Report or the Resample & Type Recommendation Report (the unit's copy) be forwarded for dissemination to subordinate units, it is essential that the report be forwarded to the units ASAP. Failure to forward the unit's copy to the unit in a timely manner will result in unnecessary AOAP problems such as, repeat notices, data errors, and delinquent samples. This also applies when recommendations from the lab are phoned or faxed to the command level.

c. Unit Monitors should establish a unit level AOAP program that monitors all phases of training, performance, and follow thru of the AOAP, to include:

(1) Provide the AOAP Command Monitor and the AOAP lab with a copy of their appointment as AOAP monitor indicating their name and the alternate monitor's name, rank, organization/complete mailing address, and military/commercial telephone number. AOAP duty appointment(s) must be signed by the Commander.

(2) Unit monitors must be trained/certified by the supporting laboratory. Training should take place NLT 90 days after personnel have officially been appointed AOAP Monitor by the Commander.

(3) Ensure that a sufficient supply of Oil Analysis Request forms and sampling supplies are on hand at all times; equipment users and maintenance personnel should be instructed on the proper techniques of drawing samples from equipment components, and properly trained in locating data plates that list relevant equipment serial numbers that are AOAP required.

(4) Ensure that the Oil Analysis Request form contains accurate and complete data.

(5) Ensure that routine and special sampling requirements are accomplished as prescribed by the applicable AOAP publication or instructions received from the laboratory.

(6) If the ULLS is used, ensure that the database is kept current and updated when changes occur.

(7) Ensure timely submission of samples to the laboratory using the most expeditious delivery mode available. First class mail, courier, and commercial express parcel delivery is to be used to meet response times. Use of bulk parcel post or similar lower rated service is prohibited.

(8) Ensure the Commander is kept fully informed on the status of equipment maintenance, maintenance management, and readiness of equipment as reflected by Oil Analysis Laboratory Reports.

(9) Ensure the laboratory is kept up to date on any changes in the density of equipment and/or serial number changes of components which are enrolled in the AOAP.

(10) Ensure that all AOAP required equipment/components belonging to the unit are enrolled in the AOAP.

(11) Ensure that all laboratory recommendations are complied with by unit maintenance personnel, and proper feedback is documented on the applicable forms and submitted to the laboratory from both the unit/support maintenance personnel as outlined in this SOP/IAW with applicable TBs and publications.

(12) Licensed Equipment Operators - Ensure each operator is given an AOAP training course of approximately two hours duration. Completion of the training should be annotated in Section III of the individual's DA Form 348. Training should be accomplished by knowledgeable personnel, i.e., Unit AOAP Monitors, MAIT personnel, or the supporting laboratory.

(13) Ensure that up-to-date AOAP guidance and publications are on hand for quick reference.

3-15 USAREUR AOAP Monitor Training/Certification

a. Personnel designated as AOAP monitors must be trained/certified by the supporting laboratory (Mannheim Laboratory Center). Prior training received from CONUS is not valid in USAREUR. Unit personnel should contact the supporting laboratory for class schedules and requirements. (Please see chapter 1, General Information, of this SOP for the appropriate telephone numbers).

b. Training location Mannheim: (MLC), Coleman Barracks Bldg #50, Mannheim Germany.

c. Training location Bamberg: (MLC), Warner Barracks, Bldg #7487, Bamberg Germany.

d. Courses available:

- (1) AOAP training for Battalion/Unit Level Monitors.
2 days (16 hrs) 0800-1600 hrs
- (2). AOAP training for Division/Brigade Level Monitors.
4 hrs 0800-1200
- (3) Aeronautical AOAP training (only).
4 hrs 0800-1200 hrs

e. Materials required for training:

(1) All unit personnel who have been appointed AOAP monitor or alternate AOAP monitor by the Commander must bring a copy of their appointment orders to the training class.

(2) DD Form 1556 (Request, Authorization, Agreement, Certification of Training and Reimbursement) signed by the Commander, XO, or Warrant Officer in BLOCK #34 of the DD Form 1556.

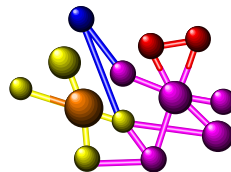
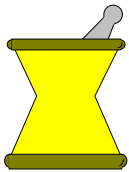
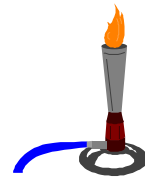
f. Billeting is the student's responsibility. There is no billeting on Coleman Barracks.

g. USAREUR AOAP Monitor Certification is valid for 3 years.

h. On-site AOAP training is available upon written request from the Commander. On-site AOAP training will not be provided for less than 10 people. Contact your supporting laboratory for coordination.



MATERIAL TESTING SERVICES



CHAPTER IV MATERIAL TESTING LABORATORY

4-1. SERVICES AVAILABLE

a. The Material Testing Laboratory of MLC works under the direction of USAREUR Supplement 1 to AR 750-1 and offers the following services:

(1) Procurement acceptance (pre-purchase and control) testing (e.g., testing the quality of contracted items before they enter the supply system; surveillance of contractor performance).

(2) Cyclic testing of Government supplies and equipment (e.g., testing the serviceability of stocked shelf-life items).

(3) Quality control of Government industrial operations (e.g., testing the quality of work done in Government shops such as, the testing of repair, painting, plating operations and construction projects).

(4) Chemical analysis of fuels, oils, and related products in connection with mechanical problems of lubricated systems (e.g., identification of POL products in vehicles, determination of contamination of POL-products,; assurance that POL products meet specified MIL-SPECS).

(5) Analysis and identification of unknown chemicals and other materials prior to turn-in/disposal (DRMO accepts only materials accompanied by lab reports and hazardous waste profile sheets, DRMO-E Form 206, identifying composition and type of item in questions).

(6) Analysis and identification of contaminants of soil, vadose-water, and groundwater IAW US and/or German requirements/laws, DIN and DEV. The laboratory is certified in accordance with the State of Baden-Wuerttemberg, Ministry of Environment, regulations and norms. Laboratory findings are considered authoritative and are accepted by German officials.

(7) Identification of solid Asbestos Containing Material (ACM), (e.g., tiles, roofing materials, bulk fibers, and dust. No airborne fibers can be measured. Knowledge of asbestos content of materials is imperative to apply correct and safe handling/disposal procedures).

(8) The laboratory can provide technical advice, recommendations, and assistance in problem solving and troubleshooting of a variety of organic and non-organic substances.

b. **DD Form 1222 (Request for and Results of Tests).** Request for laboratory testing of commodities including, but not limited to those listed in (d) below, will be submitted on DD Form 1222 (Request for and Results of Tests) or by calling 382-5293/5221. DD Form 1222 should be sent to the Director, Mannheim Laboratory Center, ATTN: Material Testing Branch Unit 29702, Box 301, APO AE 09028.

c. Request for laboratory testing by non-Army units or for commodities not listed below should be sent to the Commander, 21st Theater Support Command (TSC), ATTN: AERLO-MM, Unit 23203, APO AE 09263, for approval.

4-2. TYPES OF TESTING/ANALYSIS CONDUCTED

The USAREUR Material Testing Laboratory will test the following commodities/selections. For commodities not listed below, contact the Chief, Material Testing Branch

- (1) Abrasives, e.g., steel/plastic grit for blasting.
- (2) Antifreeze, coolants and heat transfer fluids.
- (3) Asbestos content of bulk material.
- (4) Asphaltic & bituminous products.
- (5) Battery and brake fluids.
- (6) Building materials, e.g., concrete, plasters, construction parts.
- (7) Cements, adhesives, and tapes.
- (8) Disinfectants, decontaminating products.
- (9) Ferrous and nonferrous metals, e.g., iron, non-iron, brass, steel.
- (10) Insecticides, pesticides, fungicides, herbicides.
- (11) POL, petroleum, oil, lubricants, greases.
- (12) Liquid propellant (fuels, oxidizers).
- (13) Organic and inorganic chemicals.
- (14) Paint and lacquers.
- (15) Paper products
- (16) Paving materials.
- (17) Penetrants.
- (18) Preservative compounds, e.g., sealants.
- (19) PCB, determination of polychlorobiphenyl.
- (20) PCP, determination of pentachlorophenol.

- (21) Rubber materials.
- (22) Rubber adhesives.
- (23) Soap and detergents.
- (24) Soil analysis IAW US/German requirements.
- (25) Solid fuels, liquid fuels.
- (26) Solvents.
- (27) Textiles.
- (28) Transformer oils, e.g., PCB.
- (29) Water, e.g., lead in drinking water.
- (30) Vadose Groundwater Analysis IAW US/German requirements.
- (31) Wood and wood products, e.g., treated and untreated.

4-3. SPECIFIC INSTRUCTIONS: PROPERLY PREPARING SAMPLE AND DD FORM 1222

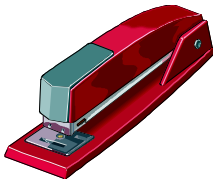
a. Analysis of samples that have not been properly collected, prepared, preserved, or transported wastes Government resources and laboratory time. The laboratory will offer advice and assistance on sample preparation, packaging, and delivery. Some recommended sample sizes and shipping containers are listed in (1) thru (6) below:

- (1) Send paint in its original, factory-sealed 2 quart container to the laboratory.
- (2) Send solid fuels (1 to 1.5 kilogram) in a polyethylene bag. Enclose the bag in a wide-mouth metal container.
- (3) Pack Class II and IV items in their original container or package if possible.
- (4) Send water samples in clean glass bottles (approx. 1 liter) filled to the top.
- (5) Send soil samples (approx. 1 kg) in clean glass bottles.
- (6) Contact the laboratory prior to submitting samples of unknown chemicals. The laboratory will inform the customer of the size, amount, and type of container to be used for safe sample submission.

b. DD Form 1222 will be accepted only from procurement, quality assurance, and engineering agencies and commanders or designees of authorized U.S. Government agencies. Requests should be as specific as possible on the tests required and the reasons for them. Standard test procedures and specifications should be cited when applicable. Shelf-life samples may be submitted if the material is valued at \$100 or more. All samples submitted must be identified properly and the degree of urgency indicated on DD Form 1222. DD Form 1222 must be filled out completely and will state the name and telephone number of the point of contact. In case of doubt, contact the laboratory for guidance.



FIGURES/EXAMPLES



MANUAL OIL ANALYSIS REQUEST (AERONAUTICAL)

OIL ANALYSIS REQUEST				KEYPUNCH CODE
TO OIL ANALYSIS LAB Mannheim APO AE 09028			1-3	SUPPORTING LAB AND MAJOR COMMAND
MAJOR COMMAND 3RD COSCOM			4	
OPERATING ACTIVITY (Include ZIP Code/APO) DODAAD B Co 8/158th Avn Regt 09165			5-10	COMPLETE COMPONENT SERIAL NUMBER
EQUIPMENT MODEL/APL Engine			11-14	
EQUIPMENT SER. NO. LE18896R			15-20	COMPLETE END ITEM SERIAL NUMBER
END ITEM MODEL/MILL NO. UH-1H				
END ITEM SER. NO./EIC 7221622				OIL ADDED SINCE LAST OIL CHANGE
DATE SAMPLE TAKEN (Day, Mo., Yr) 24 Mar '96			21-24	
HOURS/MILES SINCE OVERHAUL 212			25-28	OIL TYPE
HOURS/MILES SINCE OIL CHANGE 78			29-32	
REASON FOR SAMPLE LAB <input type="checkbox"/> ROUTINE <input type="checkbox"/> REQUEST <input type="checkbox"/> TEST <input checked="" type="checkbox"/> CELL <input type="checkbox"/> OTHER (Specify)			33	END ITEM USAGE REPORTED IN HOURS
OIL ADDED SINCE LAST SAMPLE (IN, QN, GALS) 13 qts.			35-38	
ACTION TAKEN				
DISCREPANT ITEM				
HOW MALFUNCTIONED				
HOW FOUND <input type="checkbox"/> LAB REQUEST <input type="checkbox"/> AIR OR GROUND CREW				
HOW TAKEN <input type="checkbox"/> DRAIN <input type="checkbox"/> TUBE			SAMPLE TEMPERATURE <input type="checkbox"/> HOT <input type="checkbox"/> COLD	TYPE OIL 23699
REMARKS CHIP LIGHT POC & Telephone number 3690.5 Hrs.				
FOR LAB USE ONLY				
SAMPLE RESPONSE TIME				39-40
FE 41-43	AG 44-46	AL 47-49	CR 50-52	CU 53-55
MG 56-58	NI 59-61			
PB 62-64	SI 65-67	SH 68-70	TI 71-73	MO 74-76
LAB RECOMMENDATION				77-78
SAMPLE NO.	SIGNATURE	FILE MAINT 79	DATA SEQ 80	

FORM DD 1 NOV 77 2026 PREVIOUS EDITION WILL BE USED

Figure 2-1. DD Form 2026
(Manual Aeronautical Oil Analysis Request)

Supplies

To ensure compliance with AOAP requirements, keep an adequate stock of sampling supplies on hand. This chart gives basic information about supplies needed to sample aeronautical and nonaeronautical equipment. If your equipment has a sampling valve, you do not need the oil sampling pump or tubing. (It is Recommended a 90-day supply of expendables be stocked.)



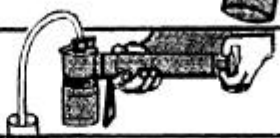



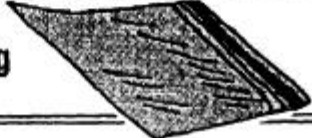
Non-Aero NSN	Item	Aero NSN
8125-01-082-9697	 Sampling Bottle 	8125-00-933-4414
(NOTE 1) 4930-01-119-4030	 Pump, Oil Sampling	N/A
N/A	3/8-in Plastic Tubes 15-in long  30-in long	4710-00-933-4415 4710-01-087-1629
4720-00-964-1433	Nonmetallic tubing 1/4-in outside diameter 	N/A
8105-00-290-0340	Shipping Sack 	8105-00-290-0340
8105-00-837-7754	Plastic Bag 	8105-00-837-7754
8125-01-193-3440	MAILER KIT (NOTE 2)	N/A
NOTES: (1) The 3 ounce nonaeronautical plastic sampling bottle will be used for submitting grease samples. (2) The mailer kit, NSN 8125-01-193-3440, is leakproof and contains 24 nonaeronautical sampling bottles, plastic shipping sacks, and mailing cartons. It is used when shipping samples through the Postal Services.		

Figure 3-1. AOAP Sampling Supplies.

Taking a Nonaeronautical Oil Sample

Valve Method:

To make sampling easier, sampling valves are installed on many items of nonaeronautical equipment according to instructions in TM 9-2300-422-23&P.

To take a sample with a valve, you may need to start the engine to pressurize the system. Once the oil starts to flow, flush a small amount (approx. 1/2 pint or 3 oz.) of oil from the line to clear out contamination. Then fill the sample bottle from the valve.

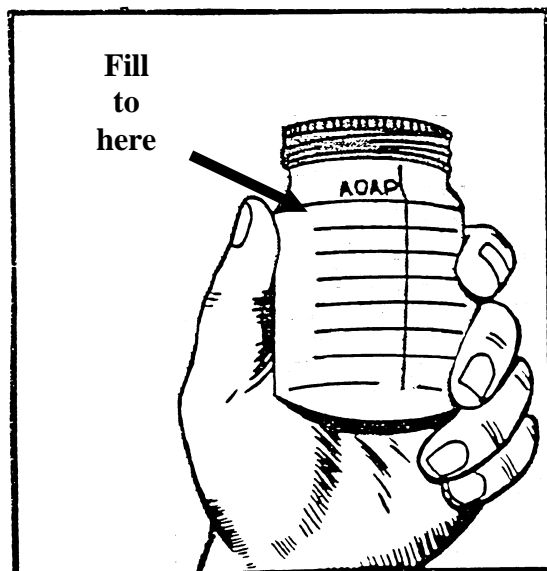
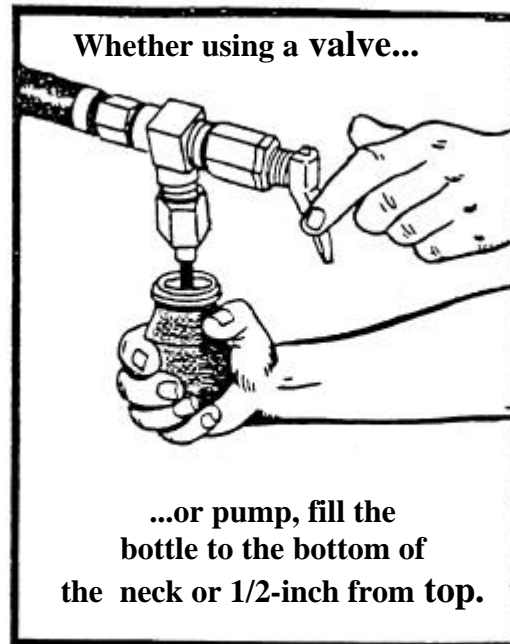
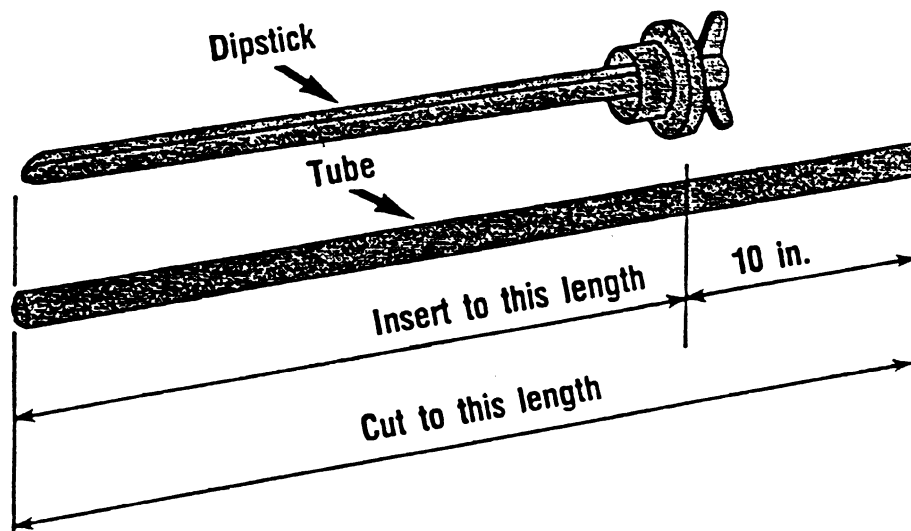


Figure 3-2. Sampling using the valve method.

Pump Method:

Sampling from equipment that has no sampling valve takes more time. First, cut the tubing about 10 inches longer than the dipstick



Loosen the T-handle on the pump. Insert the plastic tubing about 2 inches into the bottle. Tighten the T-handle just enough to grip the tubing firmly. Remove the filler cap or dipstick from the oil reservoir. Insert the tubing into the reservoir, but be careful not to let tubing touch bottom. If the tube touches the bottom, sludge will be picked up, and the laboratory will request another sample.

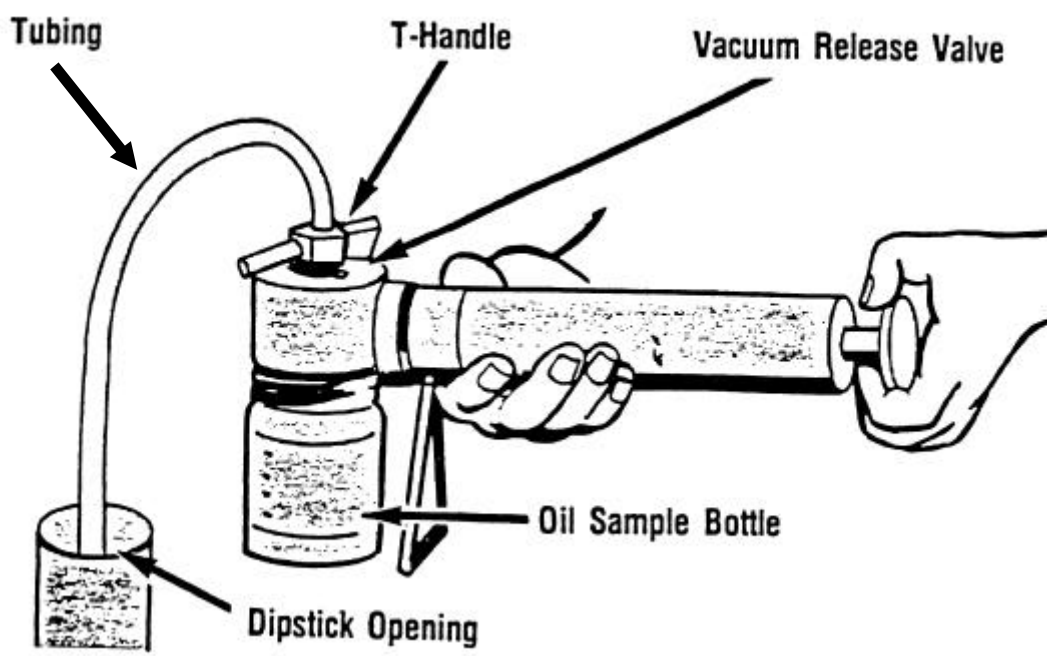


Figure 3-3. Sampling using the pump method

Pull the pump handle out slowly. Oil should flow into the sample bottle.

Fill the sample bottle to the bottom of the neck or about 1/2 inch from the top of the bottle. Push the vacuum release button when you have enough oil. Do not let oil get into the pump. If oil does get into the pump, clean it thoroughly.

Remove the tubing from the dipstick opening. Unscrew the sample bottle and replace the bottle cap. Use a clean rag or tissue to wipe off any oil on the tip of the tube. Then pull the tube out of the pump head. Discard the tubing.

Whether you take your sample by valve or pump, enter end item and component serial numbers on the sample bottle and make sure information on DD Form 2026/ULLS 5991-E are correct and complete. Then get the sample, along with the DD Form 2026/ULLS 5991-E, to the TAMMS clerk for processing. The TAMMS clerk will see that it is sent to your AOAP laboratory by the fastest means available.

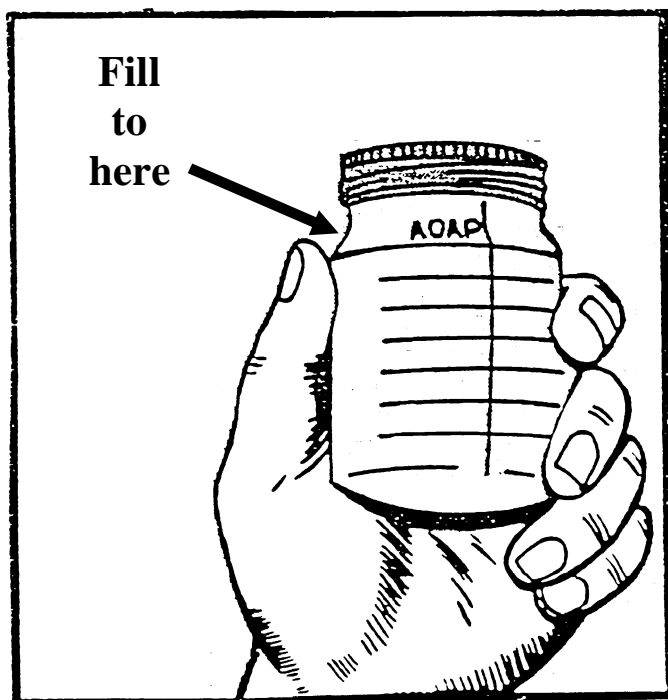


Figure 3-3a. Pump method continued

MANUAL OIL ANALYSIS REQUEST (NONAERONAUTICAL)

OIL ANALYSIS REQUEST				KEYPUNCH CODE
TO		OIL ANALYSIS LAB Mannheim APO AE 09028-1		SUPPORTING LAB AND MAJOR COMMAND
FROM		MAJOR COMMAND 3RD COSCOM		
		OPERATING ACTIVITY (Include ZIP Code/APO) DODAAD B Co 8/158th Avn Regt 09165		
EQUIPMENT MODEL/APL		Engine DD8V92TA		COMPLETE COMPONENT SERIAL NUMBER
EQUIPMENT SER. NO.		8VF123456		
END ITEM MODEL/HULL NO.		M978		COMPLETE END ITEM SERIAL NUMBER
END ITEM SER. NO./EIC		20E102236		
DATE SAMPLE TAKEN (Day, Mo., Yr)		24 Mar 96		OIL ADDED SINCE LAST OIL CHANGE
HOURS/MILES SINCE OVERHAUL		212		
HOURS/MILES SINCE OIL CHANGE		78		OIL TYPE
REASON FOR SAMPLE		<input type="checkbox"/> ROUTINE <input type="checkbox"/> REQUEST <input type="checkbox"/> TEST <input checked="" type="checkbox"/> OTHER (specify)		
OIL ADDED SINCE LAST SAMPLE (Pt., Qts., Ltr)		13 qts.		END ITEM USAGE REPORTED IN MILES, HOURS, OR KILOMETERS
ACTION TAKEN		DISCREPANT ITEM		
HOW MALFUNCTIONED		HOW FOUND		
HOW TAKEN		SAMPLE TEMPERATURE		
<input type="checkbox"/> DRAIN <input type="checkbox"/> TURN		<input type="checkbox"/> HOT <input type="checkbox"/> COLD		
TYPE OIL		15W40		
REMARKS		LOS OF POWER		
POC & Telephone number		10,514 Miles		
FOR LAB USE ONLY				
SAMPLE RESPONSE TIME				
FE 41-43	AG 44-46	AL 47-49	CR 50-52	
CU 53-55	MG 56-58	NI 59-61		
PB 62-64	SI 65-67	SP 68-70	TI 71-73	
MG 74-76				
LAB RECOMMENDATION				
77-78				
SAMPLE NO.	SIGNATURE	FILE MAINT	DATA SEQ	
		79	80	

DD FORM 2026 1 NOV 77 PREVIOUS EDITION WILL BE USED

Figure 3-4. DD Form 2026
(Manual Oil Analysis Request, Ground Equipment)

ULLS GENERATED OIL ANALYSIS REQUEST (NONAERONAUTICAL)

OIL ANALYSIS REQUEST		DA FORM 5991-E
DATE:	UIC: WABCD0	MAJOR COMMAND: USAREUR
ORGANIZATION: COMMANDER 1ST BN, 6TH FA (A CO) ATTN: BMO APO AE 09139	BUMPER NO: B-66	
COMPONENT SER NO: 8VF123456	END-ITEM SER NO: 25E1023842	
COMPONENT MODEL: DD8V92TA COMPONENT NOUN: ENGINE	END-ITEM MODEL: M983	
REASON FOR SAMPLE: ROUTINE DATE SAMPLE TAKEN: 26-MAR-96	EIC: B2A	
HRS/MILES SINCE NEW/OVHL: H 000213	ODOMETER/HOURLMETER: (M)K/H 003437	
HRS/MILES SINCE OIL CHANGE: H 000213	LABORATORY USE ONLY	
OIL ADDED SINCE LAST SAMPLE:	5 QT	
TYPE OIL:	15W40	
RECENT COMPONENT MAINT/REMARKS		
ENGINE KNOCKING POWER LOSS		
AOAP RELATED:		
ODR=		
EIR=		
WORK ORDER NO=		
SAMPLE NO:	ASSIGNED LAB: MLC, BAMBERG ACTIVITY	
SAMPLE INDEX NO:	RECOMMENDATION NO:	
UNIT POC: SFC STEWART	EVALUATOR:	DATE:
UNIT PHONE NO: 469-1234		

Figure 3-5. ULLS 5991-E
(Oil Analysis Request, Ground Equipment)

DEPARTMENT OF THE ARMY
HEADQUARTERS, 1ST BATTALION (PATRIOT), 8TH AIR DEFENSE ARTILLERY
UNIT 00091
APO AE 09999

2 Oct. 01

MEMORANDUM FOR AOAP Lab Chief, Mannheim or Bamberg

SUBJECT: Additional Duty Appointment

1. Effective 2 Oct. 01, WO1 Mel Gibson is appointed as Battalion AOAP Monitor for 1st Battalion, 8th Air Defense Artillery.
2. AUTHORITY: AR 750-1
3. PURPOSE: To perform duties as required by applicable regulations.
4. PERIOD: Until officially relieved.
5. SPECIAL INSTRUCTIONS: N/A
6. To contact AOAP monitor: DSN 385-1010, Fax 385-1927; email: mel.gibson@cmtymail.100asg.army.mil.

TOM A HANKS
LTC, AD
Commanding

DISTRIBUTION:

- 1- Soldier Concerned
- 2- File

*Figure 3-6. Example Memo:
(AOAP Monitor Appointment Orders)*

DEPARTMENT OF THE ARMY
HEADQUARTERS, 1ST BATTALION (PATRIOT), 8TH AIR DEFENSE ARTILLERY
UNIT 00091
APO AE 09999

10 Sep 01

MEMORANDUM FOR AOAP Lab Chief, Bamberg or Mannheim

SUBJECT: **Unit Deployment** (without equipment)

1. Effective 15 Nov 01, 1/8 ADA Battalion will deploy to Macedonia.
Equipment will remain at the motorpool in non-operational use in administrative storage.
Please place equipment in **STORAGE** status in the AOAP data base for the following UICs.
2. UIC: **WD4XT0 (HHB 1/8 ADA)** **WD4XA0 (A Co, 1/8 ADA)**
WD4XB0 (B Co, 1/8 ADA) **WD4XC0 (C Co, 1/8 ADA)**
3. POC is CW3 Gene Hackman, AOAP monitor, DSN 424-7800.

JENNIFER A. LOPEZ
LTC, FA
Commanding

Example Memo: Unit Deployment (without equipment)

For large density, it is recommended that a copy the AOAP printout with highlighted equipment be attached to the above memorandum, & forwarded to the lab.

Figure 3-7. Example Memo: Unit Deployment (without equipment)

DEPARTMENT OF THE ARMY
HEADQUARTERS 82ND ENGINEER BATTALION
UNIT 00091
APO AE 09999

4 Oct 01

MEMORANDUM FOR AOAP Lab Chief, Bamberg or Mannheim

SUBJECT: **Unit Deployment (with equipment)**

1. Effective 25 Nov 01, 82 Engr Bn, A Co will deploy to Bosnia. Request equipment identified on the attached printout be placed in TDY status.
2. UIC: **WANEE0 (A Co. 82nd Engr Bn)**
3. POC is SFC Jodie Foster, AOAP monitor, DSN 444-0001.

ANTHONY S. HOPKINS
LTC, EN
Commanding

Example Memo: Unit Deployment (with equipment)

For large density, it is recommended that a copy the AOAP printout with highlighted equipment be attached to the above memorandum, & forwarded to the lab.

Figure 3-8. Example Memo: Unit Deployment (without equipment)

DEPARTMENT OF THE ARMY
HEADQUARTERS, 621ST MSB
UNIT 00091
APO AE 09999

12 Jul 01

MEMORANDUM FOR AOAP Lab Chief, Mannheim or Bamberg

SUBJECT: **Equipment Turn-in**

1. The following equipment has been turned-in, and is no longer on unit property book.
2. Please delete equipment from UIC: WWWHTO/HQ 621st MSB in the AOAP database.
3. Equipment:

<u>BUMPER #</u>	<u>END ITEM SER. #</u>	<u>COMP MODEL</u>	<u>END-ITEM MODEL</u>	<u>COMP SERIAL #</u>
A-16	054689	ENGINE	M35A3	5RM12345
B-70	29F1026789	ENGINE	M977	8VF123456
B-70	29F1026789	TRANS.	M977	2510165897
C-66	27E1026657	ENGINE	M984	8VF105245
C-66	27E1026657	TRANS	M984	25100676516
C-66	27E1026657	HYD	M984	27E1026657

4. POC is SFC Gene Hackmann, AOAP Monitor, DSN 445-3600.

Billy Martin
MAJ, OD
XO

EXAMPLE MEMO: Equipment Turn-in:

For large densities, it is recommended that the AOAP printouts for each unit be attached to the above memorandum.

*Figure 3-9. Example Memo:
Equipment Turn-in, no longer on property book,*

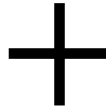
PAPERWORK REQUIRED BY THE LAB TO PLACE EQUIPMENT IN MAINTENANCE STATUS

ULLS OR MANUAL GENERATED OIL ANALYSIS REQUEST FORM (5991-E OR DD 2026)

NOTE: IT IS RECOMMENDED THAT ALL COMPONENTS BELONGING TO THE END ITEM BE PLACED IN MAINTENANCE.

ULLS OR MANUAL GENERATED MAINTENANCE REQUEST FORM (5990-E OR 5504)

DATE: 26-APR-96		OIL ANALYSIS REQUEST		DA FORM 5991-E	
ORGANIZATION: COMMANDER		UIC: WGQCWA		MAJOR COMMAND: 12TH CORP	
909th QMS CO				BUMPER NO: A-40	
ATTN: AOAP MONITOR					
APO AE 09555					
COMPONENT SER NO: NG34QTE1		END-ITEM SER NO: 066231			
COMPONENT MODEL: 6.2 L DIESEL		END-ITEM MODEL: M998			
COMPONENT NOUN: ENGINE		EIC: BBD			
REASON FOR SAMPLE: ROUTINE		ODOMETER/HOURLMETER: M/K/H			
DATE SAMPLE TAKEN: 26-APR-96		LABORATORY USE ONLY			
HRS/MILES SINCE NEW/OVHL: H 266					
HRS/MILES SINCE OIL CHANGE: H 30					
OIL ADDED SINCE LAST SAMPLE:					
TYPE OIL: 15W-40					
RECENT COMPONENT MAINT/REMARKS					
PLEASE PLACE IN MAINT STATUS. EQUIPMENT IN DS FOR REPAIRS. 5504					
APPACHED					
AOAP RELATED:					
ODR=					
EIR=					
WORK ORDER NO=					
SAMPLE NO:		ASSIGNED LAB: MANNHEIM OIL LAB			
SAMPLE INDEX NO:		RECOMMENDATION NO:			
UNIT POC: SFC HULK HOGAN		EVALUATOR:		DATE:	
UNIT PHONE NO: 444-2356/2345					



MAINTENANCE REQUEST										DOC NO	NO OF PAGES	REQUIREMENT CONTROL SYMBOL	FORM NO
For use of this form, see PAM 118-710, the program agency is DCS/STC													
SECTION I - CUSTOMER DATA										SECTION II - MAINTENANCE ACTIVITY DATA			
1. CUSTOMER NAME										2. WORK ORDER NUMBER (S/N)			
3. ITEM LOCATION CODE										4. WORK ORDER DATE			
5. ITEM NAME										6. ITEM TYPE			
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567. ITEM LOCATION CODE										568. ITEM TYPE			
569. ITEM NAME										570. ITEM TYPE			

DATE: 25-MAR-98

MAINTENANCE REQUEST

DA FORM 5990-E

----- CUSTOMER DATA -----		
UIC: WB1XAA	5TH MAINTENANCE CO.	PHONE: (000)489-6686
UTIL CODE: 0		
----- ACTIVITY DATA -----		
SUP WON:	5TH MAINTENANCE CO.	PHONE: 489-6337
SUP UIC: WB1XAA		SHOP SEC:
----- EQUIPMENT DATA -----		
TYPE MNT REQ: 1	ID: A NSN: 2320011077155	MODEL: M998
NOUN: TRK UTL CGO 1.25T 4X4	SER NUM: 022268	QTY: 00001
ORG WON: B1XAA0803279	PRIORITY: 02	FAILURE DETECTED: A
MI/KM: M 026940	HOURS: -----	ROUNDS:
IN WARRANTY:	LEVEL OF WORK: F	ADMIN NUM: 5-100
DEFICIENCY: FUEL IN ENGINE OIL		
PD AUTHENTICATING SIGNATURE: _____		
----- SIGNATURE DATA -----		
SUBMITTED BY: _____	ORD DATE: _____	MIL TIME: _____
ACCEPTED BY: _____	STATUS: _____	ORD DATE: _____
		MIL TIME: _____
----- ACTION DATA -----		
WORK STARTED BY: _____	STATUS: _____	ORD DATE: _____
		MIL TIME: _____
INSPECTED BY: _____	STATUS: _____	ORD DATE: _____
		MIL TIME: _____
PICKED UP BY: _____	STATUS: _____	ORD DATE: _____
		MIL TIME: _____
----- COMPLETION DATA -----		
QTY RPR: _____	QTY CONDEMNED: _____	NRTS: _____
EVAC WON: _____	EVAC UNIT NAME: _____	

DA FORM 5990-E, MAINTENANCE REQUEST

Figure 3-11. ULLS 5990-E
Maintenance Request

DA FORM 5988-E

5TH MAINTENANCE CO.

----- EQUIPMENT DATA -----

CURRENT READING: M 026940

DATE	CHANGE NUMBER
01/96	00
01/96	00

----- PARTS REQUESTED -----

----- PARTS REQUESTED -----

----- MAINTENANCE FAULTS -----

----- MAINTENANCE FAULTS -----

[illegible]

*Figure 3-12. ULLS 5988-E
Equipment Maintenance & Inspection Worksheet*

OIL ANALYSIS RECOMMENDATION AND FEEDBACK For use of this form, see DA PAM 738-750. The proponent agency is AMC.		REQUIREMENT CONTROL SYMBOL CSGLD-1818
1. TO: FIELD (Include ZIP Code and Telephone Number) CDR 55 PERS SERV BATT ATTN: MAINT OFFICER ATTN: AEUPE-PSB-H-PAC CMR 470 APO, AE 09165 US ARMY EUROPE		3. LAB RECOMMENDATION NUMBER A7S2451571001
		4. END ITEM MODEL M4K
		5. END ITEM SERIAL NUMBER 9150142
2. FROM: LABORATORY (Include ZIP Code) MANNHEIM LABORATORY CENTER UNIT 29702, BOX 301 ATTN: AERSC-MLC APO, AE 09028 Comm: 49-621-779-5246 FAX: 382-4302 DSN: 382-5208/5131 email: ismail.alsaadi@hq.21tsc.army.mil		6. COMPONENT TYPE CASE-207D -ENG
		7. COMPONENT SERIAL NUMBER 4323380
		8. COMPONENT TIME (Hours/Miles) 0 Hours Reported
9. RECOMMENDATION AND REASON FOR ACTION <u>TEST FAILED</u> Physical <u>LAB FINDINGS</u> Fuel VISC/70		TEC CODE BUMP NO SAMPLE NO DJVA P-25 03393 Do Not Operate Do not Chg Oil or Filt Until Corrected. Inspect/Repair: Fuel System When Corrected, Chg Oil & Filt, Resamp After 1 Hr Op. Contact Support For Assistance (IF NECESSARY)
10. SIGNATURE AND TITLE OF INITIATOR SCH		11. DATE (Day/Month/Year) 27 January 2000
12. NOTE FOR ARMY AVIATION ONLY Send copy of this form to: Commander, Corpus Christi Army Depot ATTN: AMSAM-MMC-VS-ECP, (STOP 55) 308 Crecy Street Corpus Christi, TX 78419-5260		13. QDR NUMBER
14. FEEDBACK (Maintenance Performed/Action Taken) [] Repaired Air Induction System. Parts Repaired/Replaced: _____ [] Repaired Brake/Steering System. Adjustments Made: _____ [] Repaired Fuel System. Parts Repaired/Replaced: _____ [] Repaired Cooling System. Parts Repaired/Replaced: _____ [] Changed Oil. Serviced/Replaced Oil Filter(s). Submitted _____ [] Teardown Performed. 2407 Attached. Major Findings/Comments: _____ _____ _____ Evacuated To []Ds, []Gs, []Depot. Job Order# _____ New Component Serial Number: _____ Remarks: _____		
15. FROM: FIELD DEPOT MAINTENANCE PERSONNEL [] ORG [] DS / [] GS Signature And Title Of Maint Supervisor/Monitor		16. DATE (Day/Month/Year)
17. TO LABORATORY UNIT 29702, BOX 301 ATTN: AERSC-MLC APO, AE 09028		

DA FORM 3254-R
TEST

Figure 3-13. DA Form 3254-R issued by the lab

MAINTENANCE RECOMMENDATION (3254-R) FOLLOW UP PAPERWORK REQUIRED BY THE LABORATORY AFTER COMPLETION OF MAINTENANCE

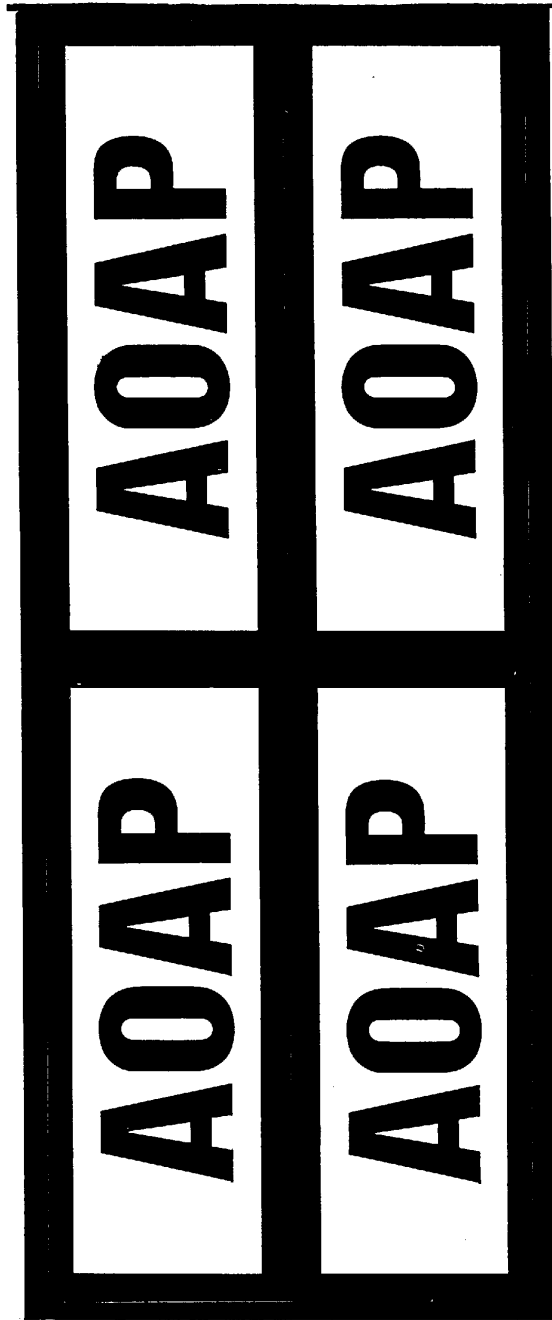
3254-R ISSUED BY YOUR AOAP LABORATORY

**SAMS-1 (WORK ORDER DETAIL)
SOURCE DS MAINTENANCE**

**DA FORM 5504 or 5990-E
(MAINTENANCE REQUEST)**

Figure 3-14. DA Form 3254-R with unit feedback, Sams-1 Work Order Detail, DA 5990-E Maintenance Request

AOAP PRESSURE SENSITIVE LABELS



*Figure 3-15. AOAP Labels issued
by the lab with DA 3254-R*

Figure 3-16. Components Enrolled Report

NON-AERONAUTICAL										COMPONENTS ENROLLED IN AOAP REPORT										FOR MLC, BAMBERG ACTIVITY									
REPORT DATE : 15 OCTOBER 2001										BY DATE SAMPLE TAKEN																			
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REQUEST, AUTHORIZATION, AGREEMENT, CERTIFICATION OF TRAINING AND REIMBURSEMENT (Abbreviated)										
A. Agency code and subelement, and submitting office number (xx-xx-xxxx) AETV-BHR-PA			B. Standard document number (Org Identifier/FY, Dec./Type code/Serial Number)			C. Request Status or Process Code (X one) <input checked="" type="checkbox"/> (1) Initial <input type="checkbox"/> (2) Resubmission <input type="checkbox"/> (3) <input type="checkbox"/> (4) Cancellation		D. Amendment No.		
Section A - TRAINEE / APPLICANT INFORMATION										
1. Name (Last, First, Middle Initial) MITCHELL, BYRON F.			2. 1st 5 letters of last name M		3. Social Security Number 324-58-9696		4. Ed. level		5. Continuous Federal Svc a. Years b. Months	
6. Home Address (Street, City, State and ZIP Code) (optional)			7. Phone Numbers (Include area code) a. Home b. Office		8. Position Title TRACK MECHANIC					
11. Organization Name B BTRY 3/27 INF			(1) Commercial (2) Autovon 485-7558		9. Position Level (X one) a. Executive b. Manager		10. Pay Plan / Series / Grade / Step (Rank/MOS/AFSC or Navy Designator) SSG/63D			
12. Organization Mailing Address (Include ZIP) UNIT 27684 APO AE 09034			13. Organization UIC WAXTOA		c. Supervisory d. Non-Supervisory		14. Type of Appointment		15. No. Prior non-government training days	
			16. Are you handicapped or disabled? (X one) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		e. Other (Specify)					
Section B - TRAINING COURSE DATA										
17. Course Title BATTALION/UNIT LEVEL AOAP TRAINING/CERTIFICATION										
18. Training Objectives (Benefits to be derived by the Government) TO LEARN TO PERFORM AOAP IAW ESTABLISHED POLICIES AND PROCEDURES (TRAINING IAW AR 750-1).					19. Recommended Training Source, School or Facility a. Name USAREUR OIL ANALYSIS LAB b. Mailing address (Include ZIP) UNIT 29702, BOX 301 APO AE 09028					
20. Course Codes a. Purpose f. Security Clearance k. Training Program b. Type g. Allocation Status l. Reason for Selection c. Source h. Priority 23. Training Period (YYMMDD) d. Special Interest i. Training Level a. Start 980318 e. Training Vendor j. Method of Training b. Complete 980319					c. Location of training site (If other than 19b) COLEMAN BKS, BLDG. 50, MANNHEIM, GE					
					21. Course hours (4 digits) a. Duty 16 b. Non-duty		22. Course Identifiers a. SAID b. Catalog / Course No. c. Offering / TLN			
Section C - COST INFORMATION (Costs incurred and billed are not to exceed amount in item 30.)										
24. If training does not involve expenditure of funds other than salary, pay or compensation, skip the remainder of questions in Section C and X this box →										
25. Direct Costs a. Tuition cost b. Books, material, other costs c. Total direct costs d. Funding source			26. Indirect Costs (For information only) a. Travel cost b. Per diem/other costs c. Total indirect costs 28. Labor Costs			27. Accounting Classification 29. Signature of Fiscal Officer (Follow local procedure)				
31. Job Order No.			30. Total of Direct & Indirect Costs							
Section D - APPROVAL / CONCURRENCE / CERTIFICATION										
32. Supervisor: I certify training is job related and nominee meets prerequisites. (If not, attach waiver.) a. Typed Name (Last, First, Middle Initial) HUTCHINSON, EDWIN P., SFC b. Phone number (include area code) 485-3587 c. Signature & Title MOTOR SERGEANT d. Date 02MAR98					33. Training Officer: I certify this training meets regulatory requirements. a. Typed Name (Last, First, Middle Initial) WHITE, CHARLES E., SFC b. Phone number (include area code) 485-5322 c. Signature & Title TRAINING NCOIC d. Date 05MAR98					
34. Authorizing Official a. Action (X one) <input checked="" type="checkbox"/> (1) Approved <input type="checkbox"/> (2) Disapproved b. Typed Name (Last, First, Middle Initial) PETRELL, MICHAEL P. c. Phone number (include area code) 485-5886 d. Signature & Title CPT, IN, COMMANDING e. Date 10MAR98					35. Course Acceptance (To be completed by school official) a. Accepted c. School Official Signature b. Not Accepted d. Date					
37. Billing Instructions (Identify discount terms. Furnish original invoice and 3 copies to: _____ % _____ days.)					36. Course Completion (To be completed by school official) a. If course was not completed, X this box, leave this section blank, and return this form with an explanation memo. → b. Actual Completion Date (YYMMDD) c. Grade d. Signature & Title e. Date					
38. Certifying Government Official a. I certify that this account is correct and proper for payment in the amount of: \$ b. Signature c. Date Signed d. DSSN Number e. Check Number f. Voucher Number										

DD Form 1556-1, MAR 87

DoD exception to SF 182 approved by GSA/IRMS 11-86.

USAPPC V2.00

Figure 3-19. DD Form 1556 Training/Authorization/Certification

DEPARTMENT OF THE ARMY

51ST MAINTENANCE BATTALION

UNIT 29922

APO AE 09086

2 Oct 01

MEMORANDUM FOR Mannheim Laboratory Center (MLC), ATTN: AERSC-MLC, Unit 29702,
APO AE 09028

SUBJECT: Request for Verification of USAREUR Army Oil Analysis Program (AOAP) Delinquency Goal Achievement

1. In accordance with USAREUR Suppl 1 to AR 750-1, App H, para H6, request the following unit's AOAP delinquency rate be verified for the period from 1 Oct 00 through 30 Sep 01 (12 months).

- a. Unit Name: Headquarters and Headquarters Detachment,
51st Maintenance Battalion
- b. Unit Address: ATTN: AERAS-U-HD
Unit 29922
APO AE 09086
- c. Unit POC/Telephone #: SFC Warbis, DSN 382-6322.
- d. Higher Headquarters: 51st Maintenance Battalion
ATTN: AERAS-U-L
Unit 29922
APO AE 09086

2. POC is the undersigned, DSN 382-6322.

DAVID J. WARBIS
SFC, USA
Battalion Maintenance

*Figure 3-20. Delinq Achievement Example
Memo (Request from Unit)*

AOAP AREA OF SUPPORT GERMANY

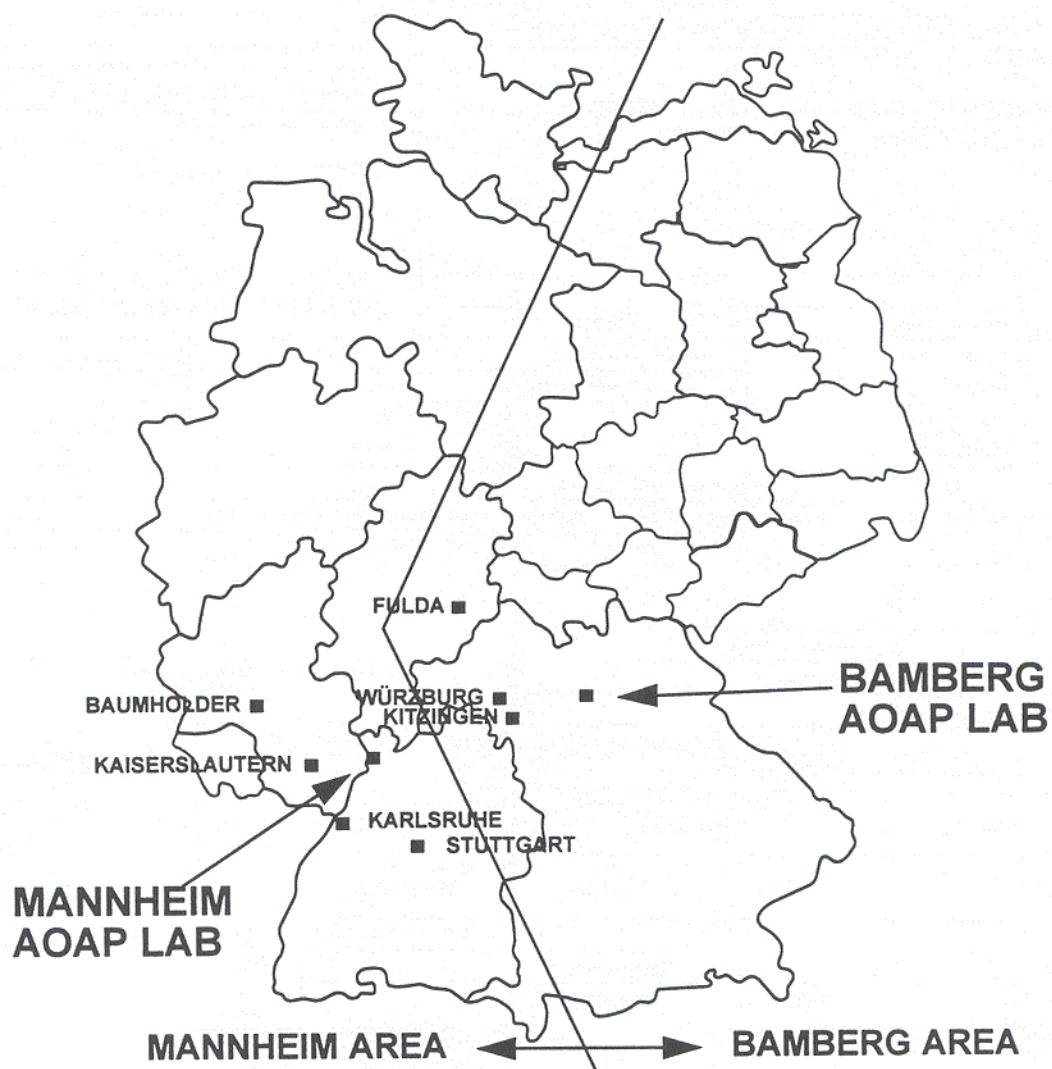


Figure 3-21. AOAP Area of Support, Germany

USAREUR AOAP (AREAS OF SUPPORT)

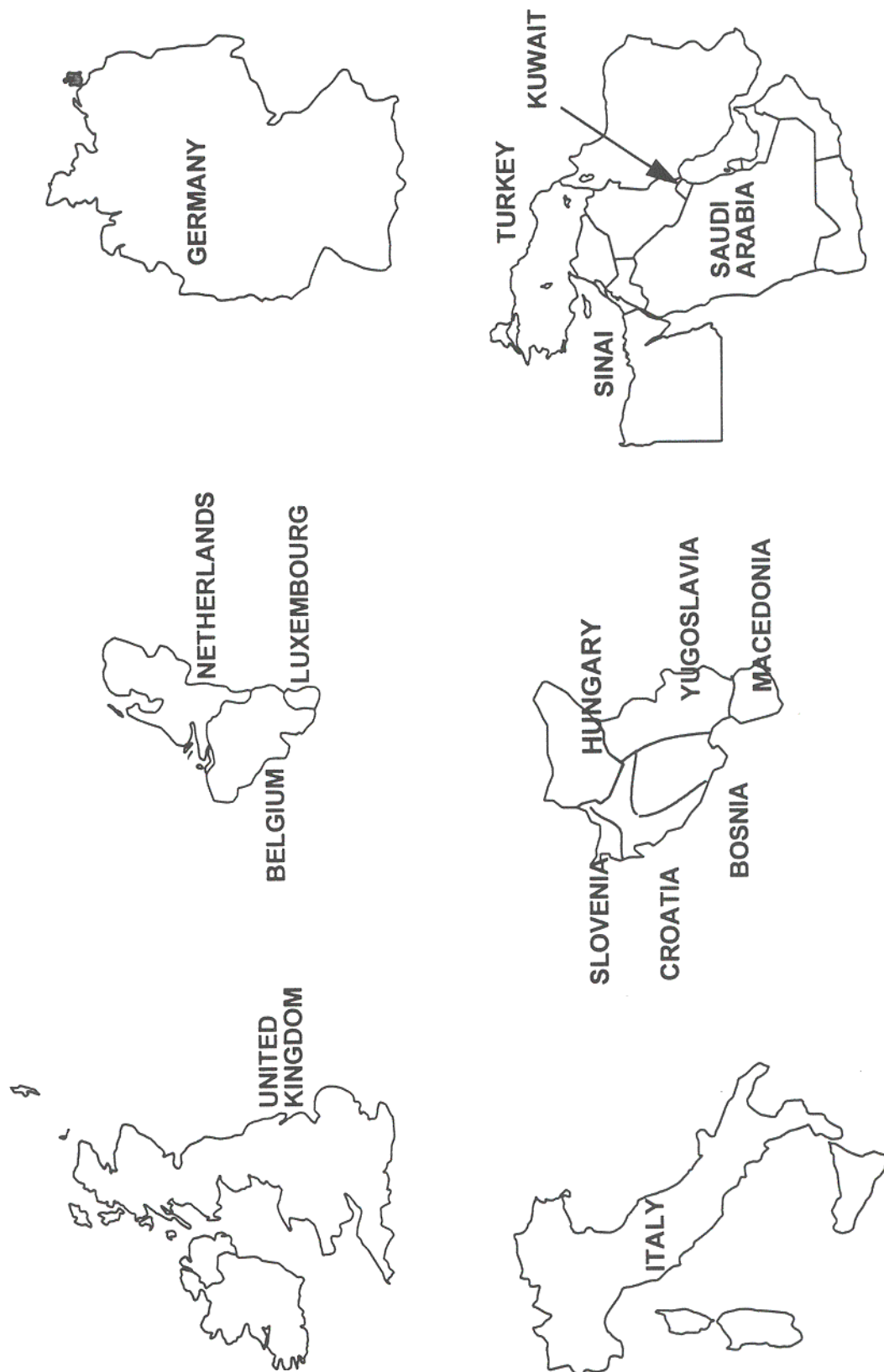


Figure 3-22. USAREUR AOAP Area of Support

REQUEST FOR AND RESULTS OF TESTS					PAGE NO.	NO. OF PAGES
SECTION A - REQUEST FOR TEST						
1. TO: (Include ZIP Code) USAREUR Materiel, Equipment and Oil Analysis Laboratories (UMEOAL) Unit 29702, Box 301 APO AE 09028				2. FROM: (Include ZIP Code) 23d Chem Co Unit 23205 APO AE 09096		
3. PRIME CONTRACTOR AND ADDRESS (Include ZIP Code) If applicable CONTRACTOR NUMBER				4. MANUFACTURING PLANT NAME AND ADDRESS (Include ZIP Code) If applicable P.O. NUMBER		
5. END ITEM AND/OR PROJECT 6852-00-539-7879		6. SAMPLE NUMBER 98-0326	7. LOT NO. 27	8. REASON FOR SUBMITTAL Serviceability	9. DATE SUBMITTED 16 Mar 98	
10. MATERIAL TO BE TESTED Solvent	10a. QUANTITY SUBMITTED 6 gal	11. QUANTITY REPRESENTED 158 gal	12. SPEC. & AMEND AND/OR DRAWING NO. & REV. FOR SAMPLE & DATE ASTM-C-539			
13. PURCHASED FROM OR SOURCE If applicable		14. SHIPMENT METHOD Truck	15. DATE SAMPLED AND SUBMITTED BY 12 Mar 98 SFC James Dearborn			
16. REMARKS AND/OR SPECIAL INSTRUCTIONS AND/OR WAIVERS. Please fax results to 337-5253 (CIV 0611-705-5253). Send originals to address above.						
17. SEND REPORT OF TEST TO 23d Chem Co, Unit 23205, APO AE 09096						
SECTION B - RESULTS OF TEST (Continue on plain white paper if more space is required)						
1. DATE SAMPLE RECEIVED		2. DATE RESULTS REPORTED			3. LAB REPORT NUMBER	
4. TEST PERFORMED		RESULTS OF TEST		SAMPLE RESULT		REQUIREMENTS
DATE	TYPED NAME AND TITLE OF PERSON CONDUCTING TEST			SIGNATURE		

DD FORM 1222, FEB 62

REPLACES DD FORM 1222, 1 JUL 58, WHICH IS OBSOLETE

USAPPC V1.00

Figure 4-1. DD Form 1222
Request For and Results of Test (Material Testing Lab)